UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,864	01/14/2004	James Peter Branigan	AUS920030840US1	3392

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EXAMINER
CAO, DIEM K

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/756,864	BRANIGAN ET AL.
	Examiner	Art Unit
	Diem K. Cao	2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>19 July 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-30</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-30 are pending. Applicant has amended claims 1, 2, 5, 6, 7, 11-17, 21-23 and

25-27.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 21-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter.

The claims 21-30 are directed to a signal directly or indirectly by claiming a medium and

the Specification recites evidence where the computer readable medium is define as a *"wave"*

(such as a carrier wave), see specification, page 27, paragraph 96. In that event, the claims are

directed to a form of energy which at present the office feels does not fall into a category of

invention. Although the claims have been amended to add "tangible", however, "tangible" is not

supported by the specification. "A recordable-type computer readable media" can be used

instead.

See MPEP 2106-2107

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in

section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-4, 8-9, 11-14, 18-19, 21-24 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (U.S. 5,881,315) in view of The Open Group (System Management: Event Management Service).

As to claim 1, Cohen teaches in a modular computer system environment (distributed computing environment; col. 4, line 9), a method comprising:

- publication data (events are of several types, error message, warnings, etc; col. 5, lines 18-20), an identifier (ID) indicating a type of data (a unique universal identifier UUID; col. 6, lines 48-49), wherein the publication data is provided in a pre-established format consumable and recognizable by any one of a plurality of the subscribe components (inherent from the event data is sent to interested consumers without modify or convert the data; col. 7, lines 21-24) of the computer system which has a plurality of publish components along with the plurality of subscribe components coupled to nodes a central information bus configuration (CIBC), which enables system-wide intercommunication among the plurality of publish and subscribe components (two or more nodes A, B and C connected through a communication link or network; col. 4, lines 10-12 Each of the processing systems may operate as a client or server, depending on whether it is requesting or supplying services; col. 4, lines 18-20);

- receiving subscriptions from one or more of the subscribe components for the publication data (In order to start receiving events ... EMS 22; col. 6, lines 11-12 and event consumers ... create a particular "event filter group" for that consumer; col. 6, lines 36-39); and

- when the publication data is published on the central information bus (Once the event

arrives at EMS via a remote procedure call; col. 7, lines 12-15), directing an issuance of the

publication data to the one or more subscribe components via directed broadcast (a queuing ... to

the interested consumers; col. 7, lines 21-24).

Cohen does not explicitly teach modeling the publication data within a publication object

that includes the data and identifier. However, The Open Group teaches modeling the publication

data within a publication object that includes the data and identifier (event consist of two objects,

event header, the event identifier, event data; page 16, section 2.2.2).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to apply the teaching of The Open Group to the system of Cohen because The Open

Group teaches a well designed Event Management Service giving timely warning of impending

problems, automatically fixing problems before service levels are degraded, integrating

application-specific events mechanisms so cross-application correlation can be done at a higher

level (page 1, section 1.1), thus the performance of system of Cohen would increase.

As to claim 2, Cohen teaches the request includes the ID of the type of data (a unique

universal identifier UUID; col. 6, lines 48-49 and event consumers ... create a particular "event

filter group" for that consumer; col. 6, lines 36-39). The Open Group teaches

- modeling at least one of the subscriptions as subscription object that includes a request

for the particular type of data (ems_filtername_list_t; page 84, and event filter, ems_event_type_t

type; page 50) and a node ID for the node at which the subscription object is generated

(ems_netname_t * hostname; page 84); and

- wherein the subscription is received from the node indicated by the node ID and

directing of the issuance of the publication data directs the publication data to be issued to the

node from which the subscription object is generated (ems_pull_consumer_register (); page 84),

also see (Cohen: the event is forward to all interested consumers; col. 7, lines 24-26).

As to claim 3, Cohen as modified teaches

- registering the request for the data in a registration facility of the CIBC (event consumer

must first register with EMS 22, Consumer Database, Event filter Database; col. 6, lines 7-12);

- comparing the ID for each publication object against the request ID in the registration

facility (EMS 22 the ... Consumer Database; col. 7, lines 14-34); and

- signaling a match of the IDs and identifying a node for which the publication data is to

be sent (A test is then ... event consumer; col. 7, lines 41-46).

As to claim 4, Cohen as modified teaches

- placing the publication object in a queue prior to issuing the publication data to the one

or more subscribing component (When the queue element is enqueued onto one of the consumer

queues 70 ... sent it to the associated consumer queue 71; col. 10, lines 16-21); and

- issuing the publication data from the queue when the publication object reaches a top of

the queue (pops elements off the elements off the consumer queue 72, and calls an event handler

routine to retrieve the queue; col. 10, lines 35-39) .

As to claim 8, Cohen as modified teaches wherein the request within the subscription

object further comprises an expression delimiter that indicates particular criteria to be met for a

publication data to satisfy the request (an event filter group ... event type; col. 6, lines 59-64).

As to claim 9, Cohen as modified teaches the CIBC is an information kit and the

publication object and subscription objects are information kit objects (Event Management

Service; col. 5, lines 29-30). Also see The Open Group pages 15-16.

As to system claim 11, it is the same as the method claim of claim 1 and is rejected under

the same ground of rejection.

As to claims 12-14 and 18-19, see rejections of claims 2-4 and 8-9 above.

As to computer product claim 21, it is the same as the method claim of claim 1 and is

rejected under the same ground of rejection.

As to claims 21-24 and 28-29, see rejections of claims 2-4 and 8-9 above.

5.   **Claims 5, 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Cohen (U.S. 5,881,315) in view of The Open Group (System Management: Event

Management Service) further in view of Bracho et al. (U.S. 6,021,443).

As to claim 5, Cohen as modified teaches wherein the publication object further

comprises a priority value (the priority of the event; page 16, section 2.2.2), the publication

object is placed on a queue (when an event is sent to EMS, it is immediately enqueued on the

input queue 74; col. 9, lines 50-51), and issuing the publication data according to a sequential

order of the publication object within the queue relative to other publication objects (At step 86,

the element is dequeued from the input queue 74, and the process repeats for other elements on

the input queue; col. 9, lines 55-57).

Cohen as modified does not explicitly teach the placing step further comprising arranging

each publication object within the queue according to the priority value of each publication

object, when two publication objects have a same priority value, arranging the two objects

according to a time of entry into the queue, wherein a first incoming object is placed within the

queue ahead of a second incoming object within a same priority value, while a later received

publication object with a higher priority value is placed within the queue ahead of an earlier

received publication object with a lower priority value, and wherein the publication data is issued

from the queue in the order in which the publication object is received at the queue relative to

other publication objects with the same priority value that are placed in the queue.

However, Bracho teaches arranging each publication object within the queue according to

the priority value of each publication object, when two publication objects have a same priority

value, arranging the two objects according to a time of entry into the queue, wherein a first

incoming object is placed within the queue ahead of a second incoming object within a same

priority value, while a later received publication object with a higher priority value is placed

within the queue ahead of an earlier received publication object with a lower priority value, and

wherein the publication data is issued from the queue in the order in which the publication object

is received at the queue relative to other publication objects with the same priority value that are

placed in the queue (this information can include the priority level of the published event; col. 5,

lines 46-47 and events received by hub are stored in event priority order in respective event

queue, hubs distribute events using a first-in, first out policy, this means that all events having a

same priority level will be delivered by hub in the order that they are accepted from the

publisher, all events with a higher priority level are delivered earlier than waiting events with a

lower priority level; col. 10, lines 29-43).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to apply the teaching of Bracho to the system of Cohen and The Open Group because

Bracho teaches the order of the events in a transaction processing can be maintained, which is

important.

As to claims 15 and 25, see rejection of claim 5 above.

6.   **Claims 6-7, 16-17 and 26-27 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Cohen (U.S. 5,881,315) in view of The Open Group (System

Management: Event Management Service) further in view of Bracho et al. (U.S. 6,021,443)

and Evans et al. (U.S. 7,191,180 B2).

As to claim 6, Cohen teaches wherein the publication object includes a freshness level

indicator (time-stamp information; col. 7, lines 9-10).

Cohen as modified does not explicitly teach determining prior to issuing the publication

data whether the publication object is stale; and when a queued publication object is stale,

triggering a publication of a more current publication object from the publish component and

discarding the queued publication object. However, Bracho teaches the event includes

information regarding how long the events are valid (col. 5, lines 46-48), and when the event is

expired, the event is not routed further by the hub, i.e., the event is dismissed (col. 15, lines 1-3).

Evans teaches when the data is expired, an update monitoring module will update the data in

(col. 4, lines 29-53).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to apply the teaching of Bracho and Evans to the system of Cohen as modified by The

Open Group because Bracho and Evans teach a method to provide to subscribe information that

are up-to-date.

As to claim 7, Cohen teaches wherein the freshness level indicator is a timestamp (time-

stamp information; col. 7, lines 9-10).

Cohen as modified does not teach evaluating when the timestamp indicates the

publication object was published before a prior time at which the publication object is considered

stale, and initiating the determining and triggering steps to retrieve the more current publication

object when the timestamp indicates the publication object is stale. However, Bracho teaches

evaluating when the timestamp indicates the publication object was published before a prior time

at which the publication object is considered stale (col. 15, lines 1-3), and Evans teaches

triggering step to update the data when the data is staled (col. 4, lines 29-53).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to apply and modify the teaching of Bracho and Evans to the system of Cohen as

modified by The Open Group because Bracho and Evans teach a method to provide to subscribe

information that are up-to-date, thus include the features in the publication object itself would

improve the performance of the system by automatically update the events that are staled,

without checking all the events data.

As to claims 16-17 and 26-27, see rejections of claims 6-7 above.

7.   **Claims 10, 20 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Cohen (U.S. 5,881,315) in view of The Open Group (System Management: Event

Management Service) further in view of Feridun et al. (U.S. 6,336,139 B1).

As to claim 10, Cohen as modified does not teaches wherein at least one of the subscribe

component and the publish component is an agent that completes a secondary function upon

receipt of the publication data. However, Feridun teaches the subscription component is an agent

(each software agent can register a correlation rule for a given event which cause the software

agent to run when the event is received; col. 8, lines 25-27). It would have been obvious to one

of ordinary skill in the art at the time the invention was made to apply the teaching of Feridun to

the system of Cohen because Feridun teaches software components that may be statically or

dynamically deployed into a distributed computing environment and then executed within a

given execution context to examine and correlate one or more given event streams (col. 1, lines

59-67)

As to claims 20 and 30, see rejections of claim 10 above.

Response to Arguments

8.　　Applicant's arguments filed 7/19/2007 have been fully considered but they are not persuasive.

In the remarks, Applicant argued in substance that (1) The Open Group fails to teach "modeling publication data within a publication object ..., wherein the publication data is provided in a pre-established format consumable and recognizable by any one of a plurality of the subscribe components ... publish and subscribe components (page 14, lines 5-28), (2) Evans fails to teach, description or suggestion of including a freshness level indicator within a publication object and then triggering a publication of a more current object when a queued publication object is stale based on the timestamp (page 16, line 1 – page 17, line 8).

Examiner respectfully disagrees with Applicant's arguments:

- As to the point (1), The Open Group is used to teach "modeling publication data within a publication object that includes the publication data and an identifier" only, whereas the rest of the limitations are taught by Cohen, therefore, the arguments are not persuasive.

- As to the point (2), Cohen as modified teaches a freshness level indicator included within the publication object, Bracho teaches evaluating when the timestamp indicates the publication object was published before a prior time at which the publication object is considered stale (col. 15, lines 1-3), and Evans teaches triggering step to update the data when the data is staled (col. 4, lines 29-53). Although Evans's method is directed to a "push" technique, and the

data updated is not based on the freshness level, one of ordinary skill in the art, based on the teaching of Bracho and Evans, would have been motivated to apply the teaching of Bracho and Evans to the system of Cohen, and implementing a "pull" technique instead of the "push" because they are just different design choices that are available to the developer.

Conclusion

9.　　Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K. Cao whose telephone number is (571) 272-3760. The examiner can normally be reached on Monday - Friday, 8:30AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DC
September 21, 2007

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER